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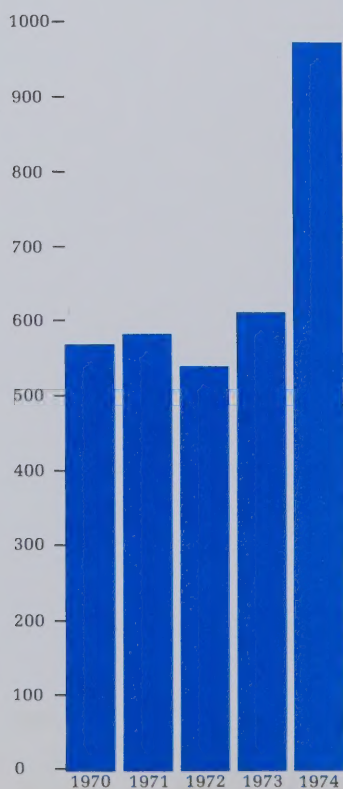
Northern Electric Company, Limited
Annual Report 1974

Consolidated results in brief

	1974	1973
Sales	\$970,711,000	\$612,821,000
Net earnings	53,753,000	32,030,000
Net earnings per share	2.05	1.35
Dividends	13,735,000	11,781,000
Dividends per share	0.525	0.50
Capital expenditures	33,728,000	26,802,000
Working capital	283,129,000	210,362,000
Employees (at December 31, includes all subsidiaries and Bell-Northern Research Limited, an affiliate)	26,147	25,073

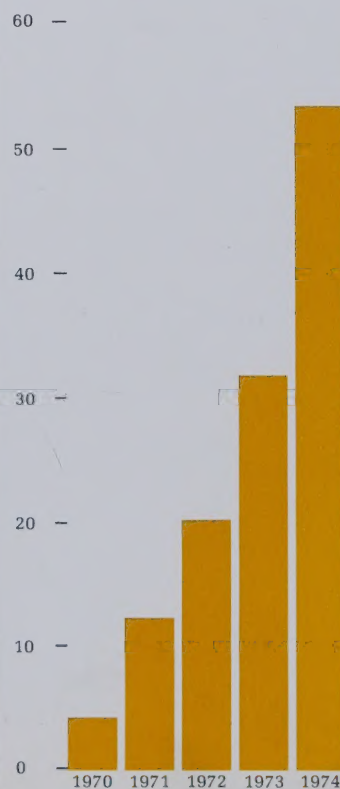
Consolidated sales

(\$ millions)



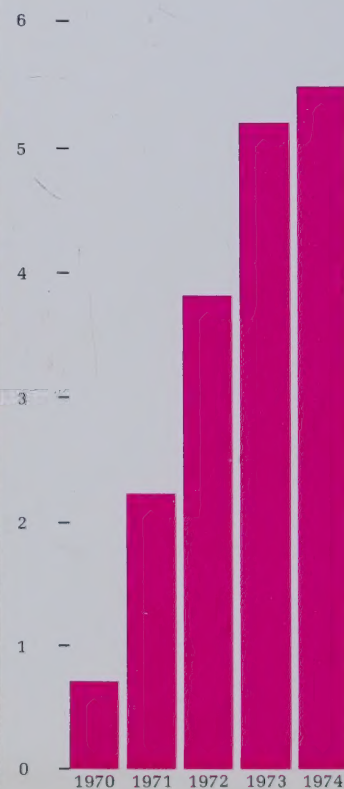
Net earnings

(\$ millions)



Earnings per sales dollar

(cents)



Report to Shareholders



1974 was a year of achievement for Northern Electric in all phases of its operations: in sales, in earnings, in expansion of domestic markets and in continued penetration of international markets.

Operating revenues and earnings were again at record levels. Consolidated sales of the company and its subsidiaries were \$970,711,000, an increase of 58 percent over the 1973 record sales of \$612,821,000.

Consolidated net earnings were \$53,753,000 compared with \$32,030,000 in 1973, an increase of 68 percent. Earnings per share were \$2.05 compared with \$1.35 in the previous year.

Canadian operations

Northern Electric is the principal supplier of telecommunications equipment in Canada. The company operates 23 factories across Canada and accounts for an estimated 75 percent of the total market for telecommunications products. Northern Electric products are sold and used in every province. Increased sales were made to the major telephone companies in western Canada and to those in the Atlantic Provinces. Sales to Bell Canada increased to meet the demands of Bell's aggressive programs of expanded service. At the same time, sales to Bell Canada continued to account for a smaller percentage of Northern Electric's total sales. In 1974 these sales represented less than half, 48 percent, of Northern Electric's sales revenues, compared with 56 percent at end of 1972.

To meet the demand for our products, to provide better service to customers and to increase manufacturing efficiency, new plants were opened in Quebec, Nova Scotia and New Brunswick. New plants are also under construction, or will be in 1975, in Saskatchewan, Manitoba, Alberta and Newfoundland.

Capital expenditures in Canada were \$27,762,000 in 1974. They are expected to be at approximately the same level in 1975.

Nedco Ltd.

Nedco is the largest distribution company of its kind in Canada and the fastest-growing major distribution company in the country. In its own right, it is now a significant Canadian corporation and qualifies easily as one of the country's largest 100 companies. Its sales in 1974 reached a record \$194,444,000.

Nedco, including its subsidiaries, Zenith Electric Supply Ltd., and Zentronics Ltd., operates 41 stocking branches, located in every Canadian province. More than 80 percent of the products it distributes come from sources other than Northern Electric. It has more than 200 other suppliers. Its main product lines consist of electrical construction materials such as power equipment, motor controls, electrical heating and lighting fixtures. Northern Electric products handled are mainly wire and cable.

Nedco operates autonomously under its own board of directors. The present management has achieved an excellent growth rate in sales and earnings since 1972.

Bell-Northern Research Limited

Bell-Northern Research is Canada's largest industrial research and development organization. It continued to expand its Canadian activities in 1974 with the establishment of a new laboratory in Montreal. It also took the first step in a program to provide Northern Electric with an international R&D capability, able to develop or adapt products within specific markets when, late in the year, BNR announced the establishment of a laboratory in Palo Alto, California.

International operations

United States

The company's U.S. subsidiary, Northern Telecom, Inc., had another year of growth with sales of \$91,116,000 compared with \$47,537,000 in 1973. Net earnings were \$3,899,000 in 1974, 37 percent higher than earnings of \$2,838,000 achieved in 1973.

New plants were opened in California and North Carolina. New and larger manufacturing facilities were built in New Hampshire and Michigan. A fifth plant was acquired in Florida.

Northern Telecom's sales coverage was expanded in the continental United States and in Hawaii, Alaska and Puerto Rico. After three years of sales effort by NTI, almost all Northern Electric product lines have achieved some penetration in this vast market. Major sales have been made with the SP-1 electronic switching system and the Pulse electronic private automatic branch exchange. Multi-million dollar SP-1 electronic switching offices were installed and put into service in Ohio, Florida, New York and Georgia.

Europe

A new subsidiary, Northern Electric (Europe) N.V., was established in Amsterdam. It will provide marketing, financial and other staff services to our plants in Ireland and Turkey. A new distributor network to be set up in Europe will also be serviced from Amsterdam.

Employment with Northern Electric Telekomünikasyon, A.S., is growing and at year-end stood at 1,135. The major products made by this company are crossbar switching systems and telephone sets. The Turkish government Post, Telegraph and Telephone organization owns 49 percent of this venture.

Northern Electric Company (Ireland) Limited, established in 1973 with a plant in Galway, continued to expand its operations in 1974.

Asia

A trading company, Northern Electric (Asia) Limited, was established with offices in Hong Kong and Singapore. Apparatus sales to southeast Asian countries are growing. A small components manufacturing operation was established in Penang, Malaysia.

Expansion

During the year, the company concluded a number of distributor and trading agreements, including one in Ireland. A distribution and manufacturing agreement was signed with Gustav A. Ring, A/S, of Norway. Ring is a manufacturer of specialized telecommunications equipment with access to many of the European government organizations which control and operate telephone systems.

The company is also looking to expand its operations through acquisitions in complementary or related product lines. Its first choice for expansion opportunities is the United States, but it is also interested in European companies.

General comments

Many major companies in the United States have changed from first-in first-out (FIFO) method of accounting for domestic inventories to the last-in first-out (LIFO) method. Under LIFO, the cost of goods sold is based on the most recent prices for raw materials and other inventory items, thus reducing inflation's ballooning effect on earnings.

Northern Electric uses FIFO inventory valuation since LIFO is not allowable for tax purposes in Canada. Pricing policies in the telecommunications industry do not result in major inventory exposure. Northern Electric would, however, welcome the cash flow benefits available were LIFO accounting permitted in Canada.

Microsystems International Limited

In the face of a worldwide decline in semiconductor sales that drastically affected all North American manufacturers, Microsystems again operated at a loss. To reduce overhead and costs, Microsystems cut employment sharply, limited product lines and reduced manufacturing floor space.

At a special meeting in Montreal on November 8, shareholders of Microsystems approved the sale of its building, near Ottawa, to Bell-Northern Research Limited, and the sale of 160,000 shares of common stock of Monolithic Memories, Inc. to Northern Electric in order to reduce bank debt. These sales were completed before year-end.

On December 9, Northern Electric mailed to all Microsystems shareholders an offer to purchase their shares for cash or Northern Electric common stock. Northern Electric offered one share of its common stock for seven shares of Microsystems common stock or one share of Northern Electric common stock for 15 Microsystems share purchase warrants.

Organization

The company was strengthened by the addition of Walter F. Light as President and Chief Operating Officer on August 1. Mr. Light had been Executive Vice-President, Operations, of Bell Canada. With this change, R. C. Scrivener became Chairman of the Executive Committee of the Board and John C. Lobb became Chairman of the Board and Chief Executive Officer.

Other officer changes were made during the year to meet the growth and diversification of the company's operations.

The company's ability to grow as fast as it has over the past year is due, to a large degree, to the dedication and skills of its employees. The Directors take this opportunity to thank them.

Telecommunications industry

The North American industry generally had a good year in 1974, although a decline in demand began to appear in the U.S. in the second half of the year. The telecommunications industry remains a growth industry. However, it is still, to some degree, affected by major economic cycles. When a recession hits a nation, demand for telephone service drops temporarily.

The world outside of North America generally has lagged in building communications networks to our standards. In much of the world the telephone is still considered a luxury.

The great opportunity for Northern Electric is to continue penetration of all available markets and to create a broader marketing base. We have made real progress towards this objective in 1974.

Outlook

Some economists are predicting a worldwide depression. We have already seen signs of a slowdown in telephone company expansion in some major markets, particularly in the United States. The current economic climate will reward the manufacturer who can hold down costs and give better service.

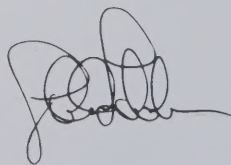
Northern Electric has a strong research position and organization. It has a strong balance sheet, excellent manufacturing facilities and an enthusiastic management team. It does not welcome the adversity of a worldwide depression, but if one occurs the company expects to come out of it stronger than its competition.

While there have been slowdowns in the United States, in Northern Electric's principal market, Canada, there has as yet been no indication of a reluctance to commit capital, for expansion and new products, by the major Canadian telephone companies.

Telephone company capital construction programs are a key economic and growth indicator for our industry. In 1974, we estimate that Canadian telephone companies spent nearly \$1.4 billion. Present indications are that such capital expenditures will be even higher in 1975. One reflection of this is that we entered 1975 with the highest level of orders in our history.

This would indicate that Northern Electric, with its share of the Canadian market and its growth in foreign markets, can look forward to another good year in 1975.

On behalf of the Board,



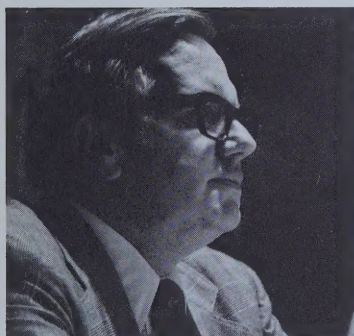
John C. Lobb
Chairman of the Board and
Chief Executive
Officer

February 20, 1975



Walter F. Light (right), president and chief operating officer, with Ewart O. Bridges, group vice-president, switching. (left)

Charles G. Millar (left), executive vice-president, operations; John C. Lobb (centre), chairman and chief executive officer; and W. A. Thompson, senior vice-president, administration.

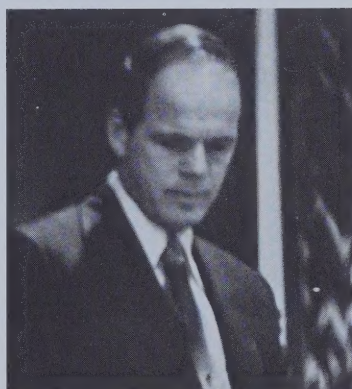


Q. R. Ball, group vice-president, subscriber equipment. (above left)

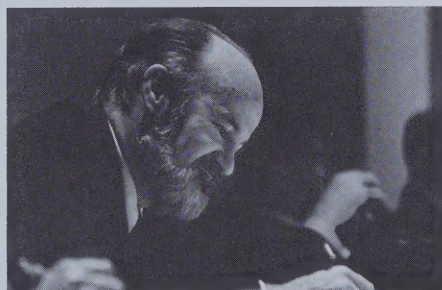


Richard F. Doyle, senior vice-president, United States and president, Northern Telecom, Inc. (above right)

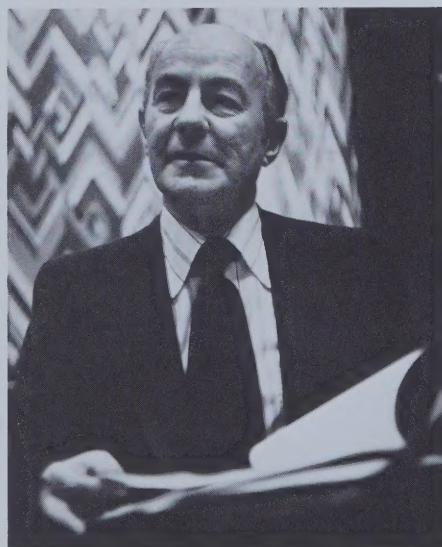
Kenneth H. Woodley, group vice-president, cable, transmission and outside plant. (right)



James G. Stark, senior vice-president, finance and chief financial officer. (below)



Dr. Donald A. Chisholm, president, Bell-Northern Research Limited.



W. F. S. Walker, president, Nedco Ltd.

Directors

Ewart O. Bridges
Group Vice-President, Switching

*A. Jean de Grandpré, Q.C.
President
Bell Canada

Georges L. Demers, Q.C.
Senior Partner
Lesage, Demers, Lesage & Brochu

J. Douglas Gibson, O.B.E.
Economic Consultant

Robert S. Hurlbut
President
General Foods, Limited

*Herbert H. Lank
Director
Du Pont of Canada Limited

*Walter F. Light
President and Chief Operating Officer

*John C. Lobb
Chairman of the Board and Chief Executive Officer

Vernon O. Marquez
Consultant

Charles G. Millar
Executive Vice-President, Operations

*J. Angus Ogilvy, Q.C.
Senior Partner
Ogilvy, Cope, Porteous, Montgomery, Renault,
Clarke & Kirkpatrick

Charles Perrault
President
Conseil du Patronat du Québec

*Gérard Plourde
Chairman of the Board and Chief Executive Officer
U.A.P. Inc.

*Robert C. Scrivener
Chairman of the Board and Chief Executive Officer
Bell Canada

James C. Thackray
Executive Vice-President, Operations
Bell Canada

W. Maurice Young
Chairman of the Board and Chief Executive Officer
Finning Tractor & Equipment Company,
Limited

*Members of the Executive Committee

Officers

Chairman of the Board and Chief Executive Officer

John C. Lobb

President and Chief Operating Officer

Walter F. Light

Executive Vice-President, Operations

Charles G. Millar

Senior Vice-Presidents

Richard F. Doyle
United States and President, Northern
Telecom, Inc.

James G. Stark
Finance

W. A. Thompson
Administration

Group Vice-Presidents

Q. R. Ball
Subscriber Equipment

Ewart O. Bridges
Switching

Kenneth H. Woodley
Cable, Transmission and Outside Plant

Vice-Presidents

Clive V. Allen
Secretary and General Counsel

Clare A. Anderson
Patents and Licences

Walter C. Bengert
Technology

William C. Cawthon
Manufacturing

David A. Climan
Treasurer

Roy T. Cottier
Corporate Relations

J. D. M. Davies
Marketing

Richard A. Fortier
Industrial Relations

Jean-Paul Gagnon
General Administration

W. Leonard Glasspoole
Controller

Jacques E. Ouellet
Personnel and Industrial Relations

William J. Pardy
Cable

William T. Simpson
Transmission

Elliott Turcot
Switching

David G. Vice
Product Line Manager, Apparatus and Cable

H. Lloyd Webster
Product Line Manager, Systems

Marketing: A Corporate Strategy

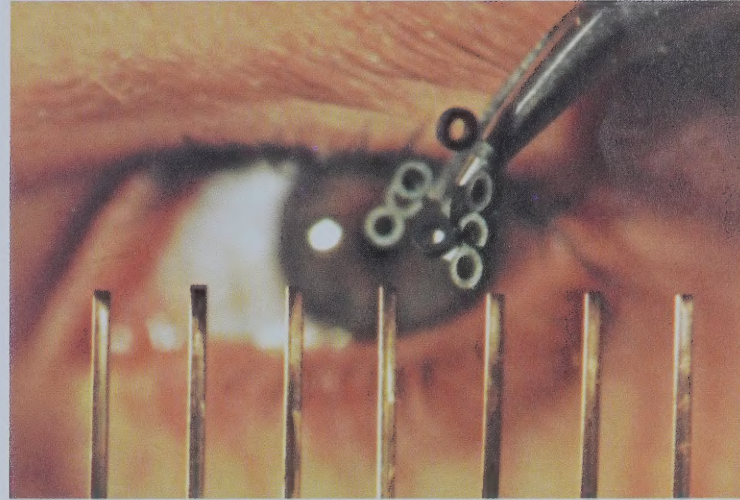
Marketing at Northern Electric is a total corporate operation based on the research, development, production and sales of superior products at competitive prices. It is characterized by the integration of the company's research and development, manufacturing, marketing, sales and service activities into a cohesive marketing-oriented structure.

The company's continued record sales and earnings reflect the success of this corporate marketing strategy. With sales close to the billion-dollar mark, the company became one of the world's largest manufacturers of telecommunications equipment during 1974.

It is currently estimated that there are 357 million telephones in the world. This is an impressive figure but it is only the tip of the iceberg. Behind these telephones is a vast array of equipment to connect them to one another: complex central exchange switching systems which connect local and long-distance telephone calls; transmission equipment which carries telecommunications traffic between central exchanges by cable, microwave radio circuits and satellite systems. Then there is wire and cable itself, measured in millions of miles.

This, or significant portions of it, is the international market for which Northern Electric competes.

Mounting ferrite core memory units for electronic switching systems at Brampton, Ontario.



Northern Electric's primary market in Canada consists of telephone companies operating approximately 12 million telephones. The company's products are used in every province and by all the major telephone companies.

In the United States, Northern Electric's primary market is made up of telephone operating companies, independent of the U.S. Bell System, connecting about 26 million telephones — double that of the Canadian market. Sales to companies in the U.S. Bell System, which represent more than 118 million telephones, are also increasing.

To serve this U.S. market, Northern Telecom, Inc. (NTI), headquartered in Boston, Mass., was established in late 1971. Its sales have reached \$91 million after three full years of operation.

Markets outside North America include telecommunications systems, owned primarily by governments, operating 201 million telephones. These world markets are divided broadly into three areas: Europe 61 percent, Japan 21 percent and other countries 18 percent. The potential of these markets is significant, but they present complex penetration problems to non-resident manufacturers due to traditional government purchasing policies and equipment incompatibility.

To meet these challenges, the company in 1974 established new subsidiaries: Northern Electric (International) N.V. and Northern Electric (Europe) N.V. in Amsterdam and Northern Electric (Asia) Limited in



Boxes of Contempra phones manufactured in Galway, Eire, being offloaded in Singapore.

Bell-Northern Research technician in Ottawa, Ontario placing silicon slices for semiconductors into a tube oven for diffusion of impurities.



Singapore and Hong Kong. The company has also concluded, or is actively pursuing, licensing, distribution and joint venture agreements in many parts of the world.

Product development

Northern Electric's record sales are, in large measure, due to its ability to anticipate customer and market needs and to develop products surpassing in design and operation those of its competitors.

In 1974, the company spent \$44 million on research and development activities. This was an increase of 33 percent over the \$33 million spent in 1973. The majority of this money went to Bell-Northern Research Limited, the company's Ottawa-based research affiliate.

Bell-Northern Research, in 1974, had more than 1,700 employees, including 800 engineers, scientists and technical personnel, making it the largest industrial research and development organization in Canada. It carries out research, design, development, long-range planning and systems engineering in all fields of telecommunications. BNR spent \$47 million in 1974 on research activities for Northern Electric and Bell Canada.

By the end of 1974, approximately 40 percent of Northern Electric's total sales were of proprietary products designed and developed by the Northern Electric group. This compares with only six percent in 1969. By 1977, the company expects proprietary products to account for 60 percent of a much larger sales volume.

Among the products developed by the Northern Electric group is the SP-1 electronic central exchange switching system with its new MOS (metal oxide silicon) semiconductor memory.

In 1974, work was completed on TOPS (traffic operator position system) which is an integral part of the SP-1 long-distance system. TOPS, in addition to improving costs for operating companies, improves the working environment of switchboard operators and has a video-screen to display information which in other systems must be obtained by the operator from various information manuals.

By the end of 1974, there were 115 SP-1 systems using either 2-wire, 4-wire or TOPS configurations installed, or on order,

in Canada and the U.S. Total value of these systems is in excess of \$300 million.

At year-end, 34 SP-1 systems had been cut into service in Canada. Eight of these are located in Alberta with Alberta Government Telephones operating seven and Edmonton Telephones operating one. The largest concentration is in Ontario and Quebec where there are 19, of which 18 were installed for Bell Canada. Four are in Manitoba and one each in Saskatchewan, Nova Scotia and Newfoundland.

In the United States, four SP-1 installations were cutover in 1974: in North Ridgeville, Ohio for the Elyria Telephone Company; in Lafayette, Georgia for the Walker County Telephone Company; in East Webster, New York, for Rochester Telephone Company and in Alta Monte Springs, Florida for the Winter Park Telephone Company. Another eight will be cutover in the U.S. in 1975.

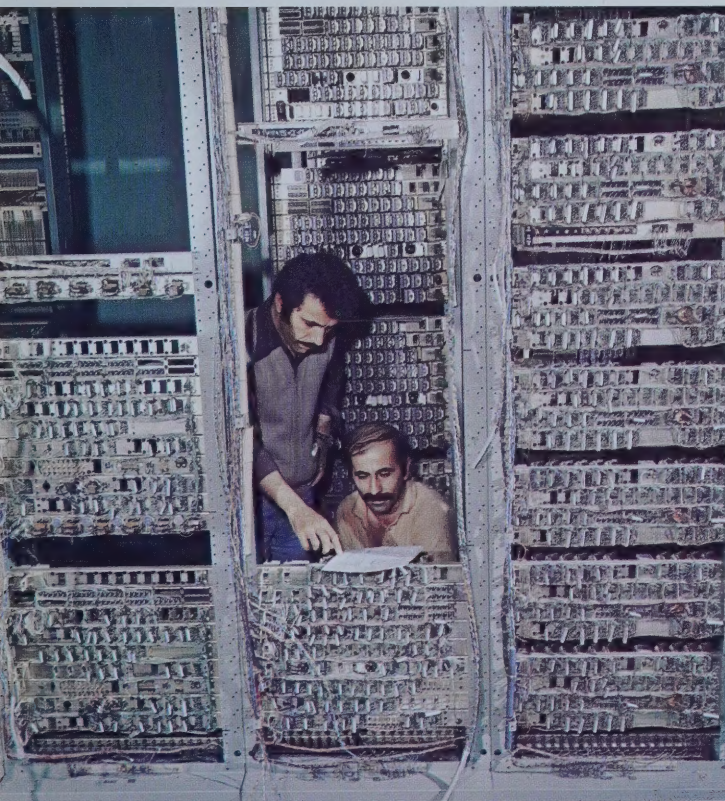
In addition, mini-computer-based systems are being extensively applied to crossbar electro-mechanical switching offices in order to sustain high sales levels in the electro-mechanical market. Among these are visual information retrieval systems (VIRS) which provide speed, accuracy and economy to operator intercept services, and central automated loop reporting systems (CALRS) which provide total automation for repair service procedures.

Business and residential apparatus developed by BNR for Northern Electric include the award-winning Contempra telephone set which has been sold in 37 countries, the Centurion single-slot coin telephone and the Logic multi-line business telephone which provides plug-in facilities for such accessories as the Companion handsfree speaker unit. Companion is designed for both home and business markets.

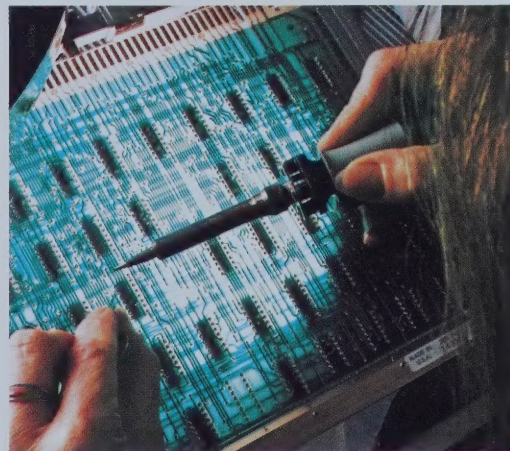
Pulse 120, an increased-capacity version of the highly successful Pulse 80 electronic private automatic branch exchange, opens an entirely new range of opportunities



Wire wrapping (top) and mounting integrated circuits on printed circuit board (bottom) for Pulse EPABX at Mountain View, California.



Assembly of electro-mechanical switching frame (#5 crossbar) at plant in Istanbul, Turkey.



in the business communications area. Pulse 120 provides automatic exchange facilities for up to 120 stations and is ideal for smaller businesses.

Northern Electric's ability to penetrate the PABX market will be further advanced in 1975 when the SL-1, a new digital-based PABX capable of handling from 100 to 5,000 lines, is introduced. The SL-1 is an advanced private telecommunications digital switching system, employing stored-program control and pulse code modulation techniques, compatible with existing telephone instruments and individual telephone lines. It is designed to accommodate additional modules for easy expansion of services.

In data transmission the company introduced the STE-2 in 1974. This is an intra-city digital data set which

transmits, in digital form, data from one computer to another at up to 9.6 kilobits per second.

Transmission equipment development was highlighted by the MA-5 multiplex combining 2,700 voice channels on a single transmission path. In 1974, the RA-3S 4 GHz microwave radio for long-haul heavy-duty routes was introduced. RA-3 equipment has been ordered by most Canadian telephone companies, Western Union Telegraph Company in the U.S. and the Republic of Ireland, Department of Posts and Telegraphs.

Another development in 1974 was the LD-4 digital coaxial cable carrier system providing 20,000 two-way voice channels on a 12-conduit coaxial cable. The first major LD-4 system is now being installed in the high-capacity Montreal-Toronto-Ottawa communications route and is scheduled to go into service in 1975.

A large measure of Northern Electric's success in marketing new products is due to the company's sensitivity to, and awareness of, new demands by both telephone companies and their customers. The company has developed the technology and organization to respond quickly and effectively to feedback from the telephone companies and the general public, and then apply this information to the development of new and improved products.

Conducting computer test of SP-1 electronic switching system at Brampton.



Assembly of model 500 rotary dial telephones in Galway, Eire.



Color-coded wire pairings which form interior of pulp insulated cable prior to sheathing.



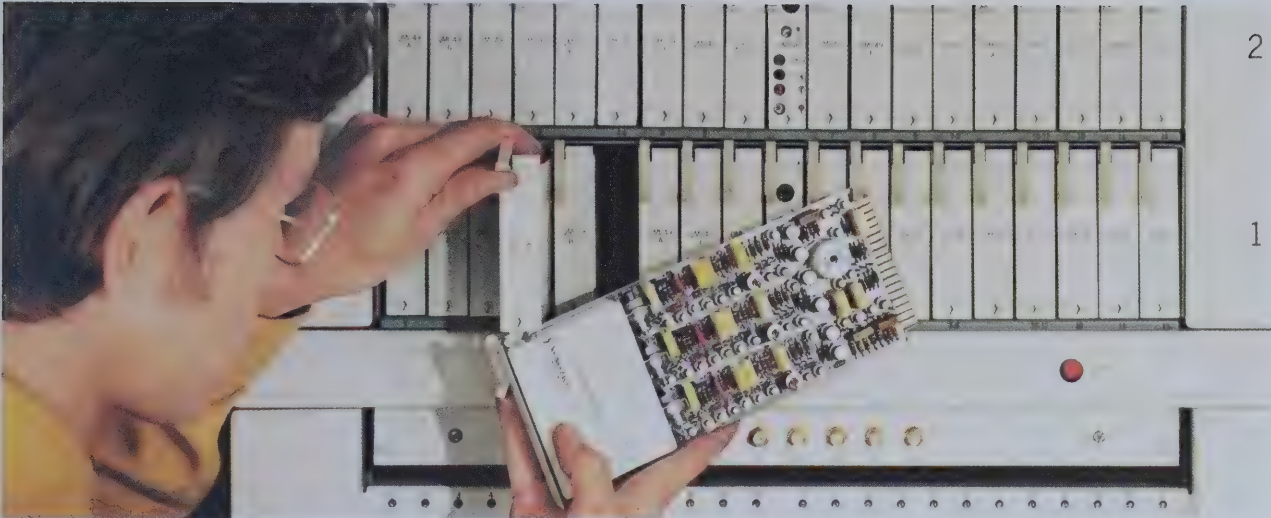
Manufacturing

Any marketing strategy would fail without a manufacturing operation capable of assembling products economically in quantities sufficient to meet demand, in locations accessible to prime markets and of a quality that precludes customer criticism. The company has continued to meet these criteria during the past year.

Northern Electric and its subsidiaries operate 32 manufacturing plants around the world with more than five million square feet of floor space. The program of plant expansion begun in 1973 continued in 1974.

Among new facilities which began production in 1974 in Canada were a residential apparatus plant in Amherst, Nova Scotia, a major transmission plant in

MA-5 multiplex transmission equipment being checked by a technician.



St. Laurent, Quebec, a plant for electronic instrument repair and calibration in Moncton, New Brunswick, and a pilot plant for switching components in St. John's, Newfoundland. Plans were also announced for three new plants to be built in Western Canada: a subscriber apparatus plant in Regina, a switching equipment plant in Calgary and a facility for switching equipment components in Winnipeg.

This continuing plant expansion program is in response to both the regional and product demands of the company's new markets. By locating new manufacturing facilities within geographic or regional markets Northern Electric is also able to participate more directly in national and regional economies through employment, taxes and construction revenues. In this way the company not only better serves the needs of its customers by improved distribution and better delivery, but also establishes and maintains good working relationships with local and regional governments and regulatory bodies.

Although Northern Electric has developed an international reputation for the quality and reliability of its products, the company continues to seek new ways to upgrade the already high standards of its production processes. In 1974 a Manufacturing Research Centre (MRC) was established in Ottawa to explore and develop new manufacturing techniques and processes, and to improve material and process standards.

The centre investigates new materials and manufacturing processes for application throughout the company. For example, products developed under prototype conditions may require entirely new materials and techniques at the manufacturing stage. The MRC provides the technical bridge between product development and manufacturing.

Marketing and sales

While it has been strengthening its R&D and manufacturing operations, Northern Electric has also been developing improved marketing, sales and distribution organizations.

The company has developed increasingly sophisticated market research, designed not only to identify product requirements but also to measure customer needs for improved sales catalogues, documentation and services.

With the company's decentralization, marketing and sales organizations have been established at the divisional and plant levels under the coordination of the corporate marketing group. Each of these marketing organizations is tailored to suit the requirements of geography, customer or product groupings, trade levels and competition. All of Northern Electric's principal subsidiaries also have decentralized marketing functions.

In keeping with the company's decentralization, and in order to ensure continuous communication between Northern

Electric and its major customers, the role of the account executive has been expanded. The 10 account executives located across Canada serve as permanent liaison between Northern Electric and its leading Canadian telephone company customers. Account executives have the responsibility, on a day-to-day basis, of keeping the appropriate people in the customer organization fully informed about Northern Electric and its products. They are there to assist the customer and to ensure that Northern Electric understands any customer need or problem so that it may act quickly and accurately to provide a solution.

Such developments have given the role of product managers a distinctly new market orientation. Product managers now have continuing responsibility for the profitability of the product or products under their jurisdiction. This involves market research, the development of marketing strategy, advertising and promotion campaigns and the training of sales and service representatives.

Underlying the company's marketing and sales operation is the principle of complete customer service. In 1974 total revision of all the company's product catalogues was undertaken to meet needs expressed by customers. This is a major undertaking and will continue in 1975.

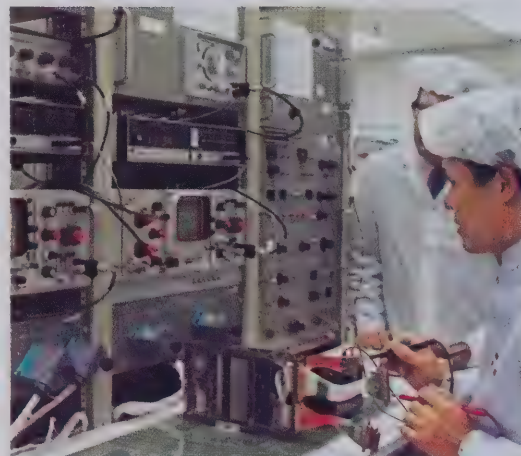
The company has established new standards for international technical seminars for senior management of operating telephone companies. More than 160 key officers of telephone companies in 14 countries attended three such seminars last year. The first at Hilton Head, South Carolina, was a detailed examination of the SP-1 electronic switching system. The second at Toronto covered all forms of switching mechanisms produced by the company including electronic, electro-mechanical and, looking ahead, digital. The third, held in Montreal, discussed telephone apparatus in use today and that likely to be in use in the future. Leading operating telephone companies played an active role at some of these seminars by delivering papers on their experiences with the products under discussion.

International Growth and Expansion

A major element in the company's marketing strategy in 1974 was the continuing penetration of international markets and the establishment of subsidiaries to serve these markets.

Northern Telecom continues to increase its share of the United States market. It now operates five manufacturing plants including a new telephone apparatus assembly plant at Port Huron, Michigan and a new telecommunications transmission test equipment manufacturing plant in Concord, New Hampshire. In 1974, facilities were completed in Butner, North Carolina for the production of electronic switching systems and in Mountain View, California for the production of private automatic branch exchanges and other telecommunications

Nearly 80,000,000 lbs. of copper were processed in 1974, through the wire and cable division's rod rolling mill in Lachine, Quebec.



Clean-room testing procedure of circuit pack for satellite platforms manufactured at Lucerne, Quebec.

products. NTI also acquired a plant near West Palm Beach, Florida for the production of printed circuit boards and other products.

In the Far East, Northern Electric established a subsidiary, Northern Electric (Asia) Limited. A trading company with offices in Singapore and Hong Kong, it was formed to sell telecommunications products manufactured in the company's plants in other parts of the world. These include components made at Penang, Malaysia. Northern Electric (Asia) also acts as a purchasing agency for various materials and components required by the company for its international and domestic manufacturing operations.

Northern Electric has been in Europe for many years as an exporter, but only in recent years has it been establishing a position



Premier Gerald A. Regan of Nova Scotia learning telephone assembly procedure at official opening of Amherst plant.



John C. Lobb (right), chairman and chief executive officer of Northern Electric and Gustav A. Ring, president of the Ring Group of Norway, signing manufacturing and distribution agreement.

as a multinational manufacturer. Despite the complexities of the European market, its potential more than justifies this effort. As one step in the consolidation of its multinational presence in Europe a new subsidiary, Northern Electric (Europe) N.V., was incorporated in Amsterdam to direct the company's sales, marketing and manufacturing functions in Europe.

Under the jurisdiction of the company are two manufacturing subsidiaries: Northern Electric Company (Ireland) Limited which operates a manufacturing facility in Galway, Eire and Istanbul-based Northern Electric Telekomünikasyon A.S., a joint manufacturing venture with the Turkish Post, Telephone and Telegraph Administration.

As another method of entering the European market, Northern Electric has also explored the possibilities of joint ventures, licensing and distribution agreements.

In 1974, a five-year contract for the reciprocal distribution and manufacture of telecommunications equipment was signed with Gustav A. Ring A/S of Norway. Under the agreement the Ring Group will act as a distributor to the Scandinavian countries, Finland and Iceland for such Northern Electric products as the Logic telephone, the Companion speakerphone, the Pulse EPABX, a key telephone system and the Venture 1 headset. In return Northern Electric has distribution rights to the Ring ACD 5000 call distributor, a computer-controlled system for distributing calls over such multi-line systems as airline reservations offices.



Film etching by Bell-Northern Research technician of schematic for printed circuit board.

Financial Review

Consolidated sales for 1974 totalled \$970,711,000, an increase of 58 percent over 1973. Revenues from sales to Bell Canada increased during the year, but declined to 48 percent of total sales. The record-high revenues for 1974 resulted from increased sales volume of established products, successful introduction of several new products, and various price increases implemented as necessary during the year. Sales by Nedco Ltd., a wholly-owned distributor of electrical supplies and equipment, amounted to \$194,444,000, of which 81 percent represented non-Northern Electric manufactured products.

An analysis of revenues by major product lines is shown below:

	\$ millions	
	1974	1973
Switching	314	177
Wire and cable	191	138
Business and residential apparatus	181	117
Transmission	103	70
Other	24	16
Non-company manufactured products	158	95
	<u>971</u>	<u>613</u>

Manufacturing costs increased significantly in respect to both materials and labor, but the company achieved a gross profit margin of 25.3 percent, virtually unchanged from the previous year. The company entered 1975 in a strong inventory position, with orders on hand substantially higher than at the previous year-end.

Net earnings for the year amounted to \$53,753,000, after deduction of \$8,405,000 representing Northern Electric's share of Microsystems International Limited's loss for the year, as compared with consolidated net earnings of \$32,030,000 for 1973. Based on the average number of shares outstanding, earnings per share amounted to \$2.05 and \$1.35 for the two years, respectively. The quarterly dividend rate was increased from 12½ cents to 15 cents per share in the fourth quarter of 1974. Internal cash generation from operations amounted to \$81,438,000 in 1974 and \$45,191,000 in 1973.

As indicated in the Consolidated Statement of Changes in Financial Position, appearing on page 17, capital expenditures amounted to \$33,728,000 in 1974 and expansion of the business required \$72,767,000 additional working capital investment. Funds were provided principally through internal cash generation and intermediate-term bank loans of \$40 million.

On December 9, 1974, the company made a public offer to exchange one common share of Northern Electric for each seven shares of Microsystems held by the public, and one share of Northern Electric common for each 15 Microsystems warrants outstanding. As at December 31, 1974, 47,056 common shares of Northern Electric had been issued in connection with this exchange offer, and an additional 279,381 shares will be issued in 1975 in the event that all Microsystems shares and warrants are tendered by the expiration of the offer on April 9, 1975.

In October 1974, Bell Canada issued two million Units — each consisting of one preferred share of Bell Canada and one warrant to purchase from Bell Canada one common share of Northern Electric at \$21.50 per share prior to December 1, 1979. On November 29, 1974 the warrants opened for trading on the Montreal Stock Exchange and traded in the range of \$1.90 to \$3.10 during the remainder of the year, closing at \$2.60 on the MSE at year-end.

During the year, Northern Electric common stock traded on the Montreal, Toronto and Vancouver stock exchanges in the range of \$15½ to \$25¼ ending the year at \$16 on the MSE in contrast to the year's decline in the MSE Industrial Index from 238 at the beginning of the year to 157 at year-end. On February 20, 1975 the MSE closing price of the company's common stock was \$21½ and the MSE Industrial Index stood at 189.

Consolidated statement of earnings
(year ended December 31)

Northern Electric
Company, Limited

	1974 (Thousands of dollars)	1973 (Thousands of dollars)
Sales	\$970,711	\$612,821
Cost of sales	725,289	452,111
Gross profit	245,422	160,710
Selling, general and administrative expenses	95,151	66,622
Research and development expenses	44,110	32,656
	139,261	99,278
Earnings from operations	106,161	61,432
Income from short-term investments	2,945	3,816
	109,106	65,248
Interest charges		
Long-term debt	4,605	5,045
Bank and other	3,114	1,545
	7,719	6,590
Earnings before underlisted items	101,387	58,658
Provision for income taxes	50,663	30,611
	50,724	28,047
Minority interest in net loss of subsidiary companies	3,029	3,983
Net earnings for the year	\$ 53,753	\$ 32,030
Net earnings per share (note 6)	\$ 2.05	\$ 1.35

Consolidated balance sheet
(as at December 31)

	1974 (Thousands of dollars)	1973 (Thousands of dollars)
Assets		
Current		
Cash	\$ 11,151	\$ 2,999
Short-term investments at cost (approximates market value)	2,930	72,614
Accounts receivable		
Affiliated companies	54,296	34,840
Other	90,604	66,249
Inventories (note 2)	254,972	177,295
Prepaid expense	5,447	1,929
Deferred income taxes	14,343	11,339
	433,743	367,265
Investment in affiliated company at cost ...	8,960	6,487
Other investments (note 3)	1,697	2,250
Plant and equipment (note 4)	119,986	119,043
Deferred charges and goodwill	3,409	4,420
	\$567,795	\$499,465

On behalf of the Board of Directors:

Vernon O. Marquez, Director

Herbert H. Lank, Director

	1974 (Thousands of dollars)	1973 (Thousands of dollars)
Liabilities		
Current		
Due to banks	\$ 130	\$ 28,945
Accounts payable and accrued liabilities		
Affiliated companies	5,476	5,561
Other	111,339	100,428
Taxes payable	30,462	17,425
Long-term debt instalments due within one year (note 5)	3,207	4,544
	150,614	156,903
Long-term debt (note 5)	104,547	69,581
Deferred income taxes	23,690	20,958
Minority interest in subsidiary companies .	3,742	6,974
	282,593	254,416
Shareholders' equity		
Capital stock (note 6)	153,754	152,975
Contributed surplus (note 7)	2,222	2,866
Retained earnings	129,226	89,208
	285,202	245,049
	\$567,795	\$499,465

Consolidated statement of retained earnings
(year ended December 31)

Northern Electric
Company, Limited

	1974 (Thousands of dollars)	1973 (Thousands of dollars)
Balance at beginning of year	\$ 89,208	\$ 70,755
Net earnings for the year	53,753	32,030
	142,961	102,785
Deduct: Dividends paid	13,735	11,781
Commission and expenses on issue of capital stock, less applicable income taxes of \$529 ..	—	1,796
	13,735	13,577
Balance at end of year	\$129,226	\$ 89,208

Consolidated statement of changes in financial position
(year ended December 31)

Northern Electric
Company, Limited

	1974 (Thousands of dollars)	1973 (Thousands of dollars)
Source of funds		
Operations:		
Net earnings	\$ 53,753	\$ 32,030
Items not requiring funds		
Depreciation (note 4)	25,797	16,587
Deferred income taxes	2,732	457
Minority interest in net loss of subsidiary companies	(3,029)	(3,983)
Other	2,185	100
	<u>81,438</u>	<u>45,191</u>
Proceeds from long-term debt	40,648	1,689
Net proceeds from issuance of capital stock	—	37,204
Proceeds from sale of plant and equipment after reflecting gains and losses in net earnings	7,531	285
Capital contribution by minority shareholders in subsidiary companies ...	—	906
Minority interest in acquired subsidiary company	—	92
	<u>129,617</u>	<u>85,367</u>
Application of funds		
Expenditures for plant and equipment	33,728	26,802
Reduction of long-term debt	5,682	5,627
Dividends	13,735	11,781
Investments in affiliated and other companies	3,637	2,188
Goodwill	—	3,856
Other	68	—
	<u>56,850</u>	<u>50,254</u>
Increase in working capital	72,767	35,113
Working capital at beginning of year	210,362	175,249
Working capital at end of year	<u>\$283,129</u>	<u>\$210,362</u>
 The increase in working capital is accounted for by:		
Increase in current assets	\$ 66,478	\$ 98,060
Decrease (increase) in current liabilities .	6,289	(62,947)
Increase in working capital, as above	<u>\$ 72,767</u>	<u>\$ 35,113</u>

Notes to the consolidated financial statements

(December 31, 1974)

1. Accounting policies

The following summary of major accounting policies is presented to assist in the interpretation of the financial statements and other data presented in this report.

Principles of consolidation

The consolidated financial statements include the accounts of Northern Electric Company, Limited ("the Company") and all subsidiary companies. When stock ownership and control of subsidiary companies is acquired, the income of these companies is included in the consolidated financial statements only to the extent of the income earned since the date of acquisition of control.

Translation of foreign currencies

The accounts of the foreign subsidiaries have been translated into Canadian dollars at exchange rates prevailing at the balance sheet date for working capital items, at exchange rates prevailing at the respective transaction dates for non-current assets and liabilities (and related depreciation and amortization) and at average exchange rates prevailing during the year for income and expenses.

Depreciation

Depreciation is calculated on the straight-line method using rates based on the expected useful lives of the respective assets.

Research and development

Research and development expenses are charged to earnings in the years in which they are incurred.

Income taxes

The Company and its subsidiary companies use the tax allocation basis of accounting for income taxes. Reduction in income taxes relating to losses carried forward in subsidiary companies are not taken up in the accounts until the date of their realization is determined.

Inventories

Inventories are valued at the lower of cost and net realizable value except for copper in raw materials and work-in-process which is valued on a base-stock method.

Goodwill

Goodwill represents the unamortized excess of the acquisition costs over the net assets of subsidiary companies. Goodwill is amortized over 40 years.

2. Inventories

At December 31, inventories consisted of the following:

	1974	1973
Raw materials	\$ 36,678,000	\$ 15,145,000
Work-in-process	129,670,000	100,868,000
Finished goods	88,624,000	61,282,000
	<u>\$254,972,000</u>	<u>\$177,295,000</u>

3. Other investments

Other investments include an investment at cost totalling \$1,064,000 which approximates market value and an investment in an unquoted company at an independently appraised value of \$633,000.

4. Plant and equipment

At December 31, plant and equipment consisted of the following:

	1974	1973
Cost		
Land	\$ 6,947,000	\$ 6,247,000
Buildings	61,109,000	60,565,000
Machinery and equipment	210,161,000	194,735,000
	<u>278,217,000</u>	<u>261,547,000</u>
Less: Accumulated depreciation		
Buildings	23,638,000	23,183,000
Machinery and equipment	134,593,000	119,321,000
	<u>158,231,000</u>	<u>142,504,000</u>
	<u>\$119,986,000</u>	<u>\$119,043,000</u>

In 1974, depreciation rates were increased to recognize a reduction in the expected useful lives of machinery and equipment. Of the increase of \$9,210,000 over 1973, \$4,243,000 is attributable to Microsystems International Limited ("Microsystems").

5. Long-term debt

Sinking fund debentures	Authorized and issued	Redeemed	Outstanding	
			Current liability	Long-term debt
4 ³ / ₄ % due November 1, 1976 ..	\$20,000,000	\$15,042,000	\$ —	\$ 4,958,000
5 ³ / ₄ % 1962 Series due December 15, 1982	20,000,000	9,016,000	—	10,984,000
6 ¹ / ₂ % Series C due April 15, 1986	15,000,000	3,927,000	—	11,073,000
9 ³ / ₄ % Series D due April 30, 1990	40,000,000	6,475,000	—	33,525,000
	<u>\$95,000,000</u>	<u>\$34,460,000</u>	—	60,540,000
Bank Loans			88,000	40,063,000
Other			3,119,000	3,944,000
			<u>\$3,207,000</u>	<u>\$104,547,000</u>

Bank loans include the following:

- \$35,000,000 term loan due August 1, 1977 at bank prime rate of interest.
- \$4,800,000 term loan due December 31, 1982 at bank prime rate of interest plus 1/2 of 1%.

Both loans may be repaid at any time without penalty.

At December 31, 1974, the amount of long-term debt payable, including sinking fund requirements, in the years 1975 through 1979, is \$3,207,000, \$9,457,000, \$40,264,000, \$4,172,000 and \$3,833,000 respectively.

6. Capital stock

The authorized share capital of the Company consists of 39,000,000 common shares without nominal or par value for an aggregate value of \$225,000,000.

On December 9, 1974, the Company made an offer to exchange its common shares with the holders of common shares and share purchase warrants of Microsystems, on the basis of one share of the Company for seven shares and fifteen share purchase warrants of Microsystems. As at December 31, 1974, the Company had issued under such offer, 47,056 common shares at an average price of \$16.55, increasing the number of issued shares to 26,209,556.

Earnings per share calculations are based on the average number of shares outstanding during the year.

7. Contributed surplus

Contributed surplus represents the net excess amount paid by minority shareholders of Microsystems over their proportional interest acquired on the issue of common shares. During 1974 contributed surplus was reduced by \$644,000, as the result of the exchange of Microsystems' common shares and share purchase warrants for common shares of the Company at exchange prices in excess of the shareholders' equity per share at dates of issue.

8. Remuneration of directors and officers

During the year 1974, there were 16 Directors of the Company whose aggregate remuneration as such was \$127,000. Certain of them were Directors of subsidiary companies; as such their aggregate remuneration was: from Microsystems \$2,000; from Nedco Ltd. \$5,000; from Nevron Industries Company, Limited \$2,000; and from Northern Telecom, Inc., \$2,000.

The Company had 32 Officers during 1974 and their aggregate remuneration as Officers was \$2,337,000. Four of the Officers served also as Directors of the Company.

9. Plan for employees' pensions

The Company and certain subsidiaries have non-contributory plans which provide for service pensions based on length of service and rates of pay. The last actuarial reviews of December 31, 1973 indicated that all vested benefits were fully funded and that on a winding-up basis no unfunded liability existed in respect of past service pension costs.

The cost of the plans charged to earnings for the year ended December 31, 1974 was \$19,435,000.

10. Commitments

Material contractual obligations in respect of long term property leases amounted to \$23,470,000 at December 31, 1974. Related rentals incurred for the year ended December 31, 1974 amounted to \$2,356,000. The minimum amount applicable to the five years subsequent to December 31, 1974 is \$12,152,000.

11. Trust agreement restrictions

Under the terms of the Trust Agreement relating to the debentures of the Company, there are certain restrictions with respect to the payment of dividends (other than stock dividends), purchase, redemption or reduction of any of its shares. As at December 31, 1974, \$122,471,000 of Shareholders' Equity was free from these restrictions.

Auditors' report

The Shareholders, Northern Electric Company, Limited

We have examined the consolidated balance sheet of Northern Electric Company, Limited and its subsidiaries as at December 31, 1974 and the consolidated statements of earnings, retained earnings and changes in financial position for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion these consolidated financial statements present fairly the financial position of the companies as at December 31, 1974 and the results of their operations and the changes in financial position for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.



Chartered Accountants
Montreal, Que.
February 4, 1975.

Corporate information

Northern Electric Company, Limited

1600 Dorchester Blvd. West
Montreal, Quebec H3H 1R1

Subsidiaries (with percentage ownership as at December 31)

Nedco Ltd. (100%)

Montreal, Que.

Northern Telecom, Inc. (100%)

Boston, Mass.

Northern Electric Company (Ireland) Limited (100%)

Galway, Eire

Nevron Industries Company Limited (100%)

Montreal, Que.

Northern Electric Telekomünikasyon, A.S. (51%)

Istanbul, Turkey

Northern Electric (Europe) N.V. (100%)

Amsterdam, The Netherlands

Northern Electric (International) N.V. (100%)

Amsterdam, The Netherlands

Northern Electric (Asia) Limited (100%)

Hong Kong

Microsystems International Limited (73.47%)

Montreal, Que.

Affiliate company

Bell-Northern Research Limited (49%)

Ottawa, Ontario.

1975 Annual Meeting

The Annual Meeting of the Shareholders will take place at 2 p.m., April 10, 1975 in the Ballroom of Le Chateau Champlain, Montreal, Que.

Listing of stock

Montreal Stock Exchange
The Toronto Stock Exchange
Vancouver Stock Exchange

Transfer offices

Company offices:

1050 Beaver Hall Hill, Montreal

10 King Street East, Toronto

Montreal Trust Company

Halifax, Winnipeg, Regina, Calgary,

Vancouver

Registrar

Montreal Trust Company

Halifax, Montreal, Toronto, Winnipeg,
Regina, Calgary, Vancouver



Montreal head office of
Northern Electric.

Consolidated ten-year review

	1974	1973	1972	1971
Earnings and related data				
Total sales	970.7	612.8	534.3	576.5
Sales of company manufactured products	812.8	517.7	451.5	475.5
Depreciation on plant and equipment	25.8	16.6	13.0	11.5
Research and development expenses	44.1	32.7	28.0	29.5
Interest charges	7.7	6.6	5.6	5.5
Provision for income taxes	50.7	30.6	21.0	14.5
Net earnings	53.8	32.0	20.1	12.5
Earnings per sales dollar (cents)	5.5	5.2	3.8	2.5
Earnings per share (dollars)	2.05	1.35	0.85	0.55
Dividends per share (dollars)	0.525	0.50	0.50	0.50
Financial position at December 31				
Working capital	283.1	210.4	175.2	176.5
Plant and equipment (at cost)	278.2	261.5	237.5	230.5
Accumulated depreciation	158.2	142.5	128.4	124.5
Capital expenditures	33.7	26.8	19.5	21.5
Long term debt	104.5	69.6	73.5	77.5
Shareholders' equity	285.2	245.0	192.1	183.5
Employees* (December 31)	26,147	25,073	20,787	23,230
Employment costs*				
Payroll	306.7	219.7	199.0	205.5
Pension and other employment costs	35.7	29.5	23.2	22.5
Total	342.4	249.2	222.2	228.0

*Includes all subsidiaries and Bell-Northern Research Limited, an affiliate.

1970	1969	1968	1967	1966	1965
(millions of dollars)					
563.6	482.5	426.3	403.3	400.2	358.1
463.9	390.7	345.3	308.1	284.1	249.6
12.4	10.5	9.9	8.6	7.9	6.4
31.0	25.9	21.7	23.8	22.6	16.4
5.1	3.6	2.7	2.7	2.7	1.9
5.3	9.8	5.6	—	.7	2.3
4.1	11.0	9.4	2.3	10.1	8.6
.7	2.3	2.2	.6	2.5	2.4
0.17	0.52	0.49	0.12	0.70	0.65
0.38	0.50	0.50	0.50	0.50	0.50
188.3	150.1	122.4	121.8	118.6	93.1
233.2	214.9	194.5	184.6	167.2	146.3
125.3	115.5	108.3	100.7	93.9	87.7
20.9	24.2	12.4	19.7	23.0	15.3
79.0	41.9	43.0	45.0	47.0	36.2
183.0	180.4	145.0	140.8	128.6	100.8
24,986	26,032	23,682	22,557	23,864	19,632
211.0	190.3	162.4	146.3	134.3	110.9
20.6	14.8	13.0	10.8	9.7	8.2
231.6	205.1	175.4	157.1	144.0	119.1

Logic 10 multi-line business telephone set with the plug-in Companion handsfree speaker phone unit. (below)



Technician using buried peg locator which detects pegs attached to underground cable and pipeline systems. (left)

Cross section of LD-4 coaxial cable carrier system. (left)



Scheduled for introduction in early 1975 is the sophisticated SL-1 digital EPABX system. (below)



Pulse electronic private automatic branch exchange (EPABX) system. (above)



Uniquely designed traffic operator position system (TOPS) features a visual information retrieval system (VIRS) which increases efficiency of operator-assisted calls. Operator is using a Venture 1 headset. (right)



Technician changing program tapes on control console of SP-1 electronic switching system. (above)

Northern Electric Contempra telephone in use at the Mandarin Hotel in Singapore. (left)

Principal products and manufacturing plants

Principal products

Subscriber apparatus

Dial, push-button and key telephones
Contempra telephones
Centurion coin telephones
Logic series of telephones
Companion handsfree units

Business communications

Data systems
Digital data sets
Key telephone systems
Key intercom systems
Cordless switchboards
Electro-mechanical and electronic PABX systems

Central office switching equipment

Step by step switching systems
Crossbar switching systems
SP-1 family of electronic switching systems

Cable

Power cable
Telephone wires
Composite coaxial cables
Switchboard cables
Pulp-insulated exchange cables
Polyethylene insulated cables

Outside plant equipment

Terminals and closures
Loading devices
Protectors
Heat coils
Backboards
Apparatus cases
Buried facilities locator systems

Transmission equipment

Analog and digital carrier equipment
Analog and digital multiplex equipment
Microwave radio systems
Communications satellite systems
Voice frequency equipment and systems

Northern Electric manufacturing plants (Existing at year-end, or under construction)

St. John's, Nfld.
Amherst, N.S.
Halifax, N.S.
Moncton, N.B.
Saint John, N.B. (2)
Lachine, Que. (4)
LaSalle, Que.
Lucerne, Que.
Montreal, Que.
Montreal North, Que.
St. Laurent, Que.
Belleville, Ont.
Brampton, Ont.
Kingston, Ont.
London, Ont.
Toronto, Ont.
Winnipeg, Man.
Regina, Sask.
Calgary, Alta. (2)

Manufacturing plants of subsidiaries

Northern Telecom, Inc.
Butner, North Carolina
Concord, New Hampshire
Mountain View, California
Port Huron, Michigan
West Palm Beach, Florida

Northern Electric Company (Ireland) Limited
Galway, Eire

Northern Electric Telekomünikasyon, A.S.
Istanbul, Turkey

Microsystems International Limited
Ottawa, Ont.
Penang, Malaysia

